REGULATORY RESPONSE AUTHORITIES

1. Background

1.1 Our Nation's Major Environmental Response Programs

National programs to clean up the environment and protect the public have seen considerable growth since the 1970's. When Congress enacted the National Environmental Policy Act in 1969, the Clean Air Act in 1970 and the Clean Water Act in 1972 it did so with the premise that, by slowing the rate at which contaminants were added to the Nation's air and surface waters, natural attenuation would eventually produce clean air and water.

In order to begin to understand the waste problems in the United States, Congress created the Solid Waste Disposal Act of 1965. The goal of the legislation was to provide funding so that each State could study and compile information on its waste disposal problems and practices, and to assist States in dealing with the problem of open, burning dumps. Additionally, funding was available for the development of State solid waste management plans. By the mid 1970's, Congress recognized that the careless disposal of waste products was contaminating surface and groundwater and contributing to air pollution. In order to combat the problem, Congress virtually rewrote the Solid Waste Disposal Act and created the Resource Conservation and Recovery Act (RCRA) which was passed in 1976.

The goal of RCRA is to promote the protection of health and environment and to conserve valuable material and energy resources. RCRA has kept in stride with current waste management issues and problems by way of Congressional amendments, the most notable of which occurred in 1984 with the passage of the Hazardous and Solid Waste Act Amendments (HSWA). Under one of the provisions of HSWA, Congress established the Corrective Action program. Promulgation of these regulations under RCRA sent a message to industry and the government that they were expected to remediate hazardous wastes sites at facilities they owned and operated before the EPA would allow existing hazardous waste operations to continue.

RCRA was enacted to require proper management of waste generated at existing facilities. However, incidents such as Love Canal soon made it abundantly clear that another statute was

needed to clean up the nation's abandoned hazardous waste sites.

Thus, in December 1980, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This was the first major response to the problem of abandoned waste sites throughout the nation resulting from the past improper management of hazardous wastes. In order to carry out the provisions of the law, congress authorized $1.6 billion over 5 years. The amount of money, and subsequently the law, became known as the "Superfund". EPA is responsible for managing the program, including site investigations and cleanup, and enforcement activities.

In 1986, Congress enacted the Superfund Amendments and Reauthorization Act (SARA). One of the more outstanding features of SARA was that it significantly increased the size of the Fund and strengthen the authorities under CERCLA. The passage of SARA had a considerable effect on DOD activities related to hazardous waste site remediation. With its enactment, EPA took a formal role in the DOD implementation of installation remediation activities for sites on the National Priorities List (NPL). For sites not on the NPL, SARA fundamentally requires DOD installations to comply with state removal and remedial action laws and to use the same NCP regulations for site evaluation and remediation processes as those used by other Federal and non-governmental entities.

1.2 **Purpose of the CERCLA Remedial Action Program**

CERCLA was originally enacted in an effort to remediate the country's worst abandoned hazardous waste sites. EPA may itself remediate such sites or require Potentially Responsible Parties who had contributed to the contamination at the site to effect such remediation.

1.3 **Purpose of the RCRA Corrective Action Program**

The RCRA Corrective Action program was established to remediate facilities where a current owner/operator of the facility was present and responsible for cleaning up the site.

2. Regulatory Authorities

2.1 Federal and State Regulatory Authorities for CERCLA

CERCLA is administered by the EPA. For non-governmental sites undergoing a CERCLA remediation, the EPA is the lead enforcement agency.

E.O. 12088 specifies that the DOD is the lead federal agency for its own CERCLA sites. For sites on the National Priorities List (NPL), the EPA must concur with the remedy selected by DOD. For non-NPL sites, CERCLA section 120 (a) (4) states that:

> "State laws concerning the removal and remedial action, including state laws governing enforcement, shall apply to removal and remedial action at facilities owned or operated by a department, agency, instrumentality of the United States when such facilities are <u>not</u> included on the NPL."

Hence, for federal sites not on the NPL, the state may have a removal or remedial action law that applies to the site, which must be complied with during remediation.

It should also be noted that CERCLA does not have transfer provisions as do some other laws like RCRA or the Clean Water Act (CWA). The broad authorities granted to EPA in carrying out CERCLA cannot be transferred to states. Thus, states may promulgate their own "mini" Superfund-type law, however it should be recognized that this is strictly a state law and does not preempted the authorities of EPA under CERCLA.

2.2 Federal and State Regulatory Authorities for RCRA

Unlike CERCLA, RCRA has transfer authority provisions. RCRA contains provisions for states to develop programs that are at least as stringent as the federal RCRA law. States submit their state hazardous management plan to the EPA and EPA then may grant the states varying levels of authorities based on their ability to administer RCRA. Most states currently have base RCRA authority. With each amendment of RCRA, Congress and the EPA determines if the states will automatically get the authorities to administer the respective amendment or if they will have to apply to EPA for approval for the amendments.

Since RCRA does have state transfer provisions, the project manager will have to contact the state to determine the state's RCRA authorities. The project manager can also contact the EPA for this information.

2.3 Dual Regulatory Authorities

It may be quite possible that two or more regulatory agencies have authority at the site.

For cases where the site is on the NPL, yet the EPA and state feel the site should be remediated under RCRA, the federal EPA CERCLA office and the federal/state RCRA office may want to exercise control at your site. The mutually agreed upon lines of authority should be determined early in the remediation in order to avoid conflict at a later date.

3. Overview of the CERCLA Remediation Process (See Figure 1)

3.1 Initiating a CERCLA Action

Congress required EPA to develop a list of all federal facilities that ever generated, stored, treated, disposed of or released/spilled or potential released/spilled hazardous wastes. The list, which EPA maintains, is called the Federal Facilities Docket. The NCP requires that a Preliminary Assessment and Site Inspection be performed on all federal sites that have been listed on the Federal Docket within six months of listing. Currently, Formerly Used Defense Sites (FUDS) are not routinely included on the Federal Docket. Inclusion on the Federal Docket is the most common way of Federal Facilities being brought into the CERCLA remediation process.

Another way to be brought under the CERCLA umbrella is for the EPA to issue a CERCLA section 104 order to initiate a removal action.

3.2 Overview of the CERCLA Process

Once a federal facility is listed on the docket, a Preliminary Assessment (PA) must be conducted at the facility. If, after completing the PA and consulting the NCP requirements, it is determined that further action is required, the facility must perform a Site Inspection (SI). Upon completion of the PA and SI, the EPA will numerically rank the site

utilizing the Hazard Ranking System (HRS). The resulting numerical score aids the EPA in determining whether or not the site will become a NPL site. If the site is determined to be an NPL site, no later than six months after inclusion on the NPL, the facility must initiate a Remedial Investigation and Feasibility Study. (RI/FS). The process outline in the NCP must be followed. After the RI/FS has been completed, a Record of Decision (ROD) will be signed. At this time, remedial design followed by remedial action can commence.

If the site is not an NPL site, the NCP does not require preparation of a RI/FS. For non-NPL sites, one should first determine if there are other federal regulations besides the NCP that apply to the site. A good example is if the facility has a RCRA permit. In this case, the RCRA corrective actions may be applied at the site. If you are remediating an Underground Storage Tank (UST), the UST provisions of RCRA may apply. Or, the state may have a groundwater remediation law that dictates the cleanup. In all cases where the site is non-NPL, CERCLA section 120(a) (4) states that state removal and remediation action laws apply.

If there are no state authorities that apply to the remediation of the site, then you are required to follow the NCP. (You still are not required to perform a RI/FS, but may do so due to the extent of contamination or for political reasons.) If you have at least six months to plan a remediation, you must prepare an Engineering Evaluation/Cost Analysis (EE/CA), then you can begin remediation or perform a removal action. The EE/CA can be made a part of the Plans and Specifications. If you have less than six months, you can perform a Time-Critical Removal Action and begin remediation immediately without any prior documentation. You will be required to document all actions taken at the site.

Figure 1 illustrates the process.

4. Overview of the RCRA Corrective Action Process - Figure 2

4.1 Initiating a RCRA Corrective Action

Section 3004(u) of RCRA requires that prior to permit issuance to a hazardous waste treatment, storage, or disposal facility (TSDF) corrective action for all releases of hazardous waste and constituents from solid waste management units (SWMUs) must be initiated. The provisions also allow schedules of compliance to be used in permits where the corrective

action cannot be completed prior to permit issuance.

Section 3008(h), the enforcement corrective action authority, vests broad discretion with EPA or an authorized state to compel corrective action wherever necessary to protect human health and the environment whenever EPA determines, based on any information, that there is or has been a release of hazardous wastes or constituents from an interim status TSDF.

Under the provisions of section 7003(a), EPA is authorized to mandate corrective actions in any situation where it has evidence that there is a significant problem (imminent hazard) which has resulted from past waste management practices.

4.2 Overview of the RCRA Process

RCRA corrective action provisions can be triggered when a facility decides to apply for a RCRA permit to store hazardous waste over 90 days, or to treat or dispose of hazardous waste on site. In any of these cases, the facility will submit a RCRA Permit Application to the state and/or EPA for a RCRA Part B permit.

Once the permit application has been submitted to the state or EPA, the RCRA Corrective Action process may begin. The state or EPA (whichever has RCRA authority) will perform the RCRA Facility Assessment (RFA). During the RFA the appropriate regulatory agency will identify Solid Waste Management Units (SWMUs). The agency will develop the Schedule of Compliance as well as identify action levels at this point. Action levels are those levels at which when exceeded will trigger initiation of a RCRA Facility Investigation (RFI). Once these action levels are set, the regulatory agency will draft the Part B permit. The public will have an opportunity to comment on the draft permit and associated schedule of compliance for corrective action. Once the SWMUs have been identified in the RFI, the facility will have to investigate these SWMUs in the RFI. [The RFI is analogous to the Remedial Investigation prepared under CERCLA.) Upon completion of the RFI, the Corrective Measures Study (CMS) will be initiated. (The CMS is much like the Feasibility Study under CERCLA.] The CMS will be prepared by the facility. During this time the regulatory agency will set Media Cleanup Standards (MCS). The regulatory agency will then prepare a Statement of Basis which is similar to the ROD under CERCLA. The regulatory agency does select the remedy. Once the remedy has been selected, the regulatory agency will issue a permit modification to modify the Schedule of Compliance to

incorporate the remedy. The facility will then begin remedial design, then remedial construction.

5. Comparison of the CERCLA and RCRA Programs

The investigatory procedures for CERCLA and RCRA remedial action programs are quite similar in nature. Figure 3 illustrates the similarities and differences between the actual processes.

While the steps in the remediation processes are quite similar, there are some differences in methodology:

5.1 The RCRA legislation provides a provision whereby EPA can delegate the authority for RCRA regulations to an approved state. A state so delegated then has the power to implement all programs including the Corrective Action program under RCRA. CERCLA and SARA amendments contain no state authority provision similar to RCRA. As a consequence, a state may enact a Superfund-type law whose provisions are similar to or more stringent than those of CERCLA, but the basic provisions of CERCLA will always take precedence under conditions where both apply.

5.2. The RCRA corrective action procedures usually apply to specifically identified facilities, such as TSDFs under 3004(u) and 3008(h). The application of CERCLA is much broader. Any facility on the Federal Docket is required to at least initiate the CERCLA Process through a PA/SI.

5.3 CERCLA is commonly thought of as regulating past activities while RCRA regulates the present management of hazardous wastes. While that statement is generally true, the response processes for the two statutes can overlap.

5.4 CERCLA has the NPL, with its associated formal ranking program for prioritizing work. RCRA has no comparable ranking system.

5.5 CERCLA has certain statutory preferences regarding the selection of remedies that are not included in RCRA. For example, CERCLA has a built-in preference for permanent remedies and requires that the remedies comply with ARARs. RCRA has no comparable requirements.

5.6 One of the remedy selection criteria under CERCLA is cost. Cost is not a factor when selecting a remedy under RCRA.

5.7 Section 121 of CERCLA establishes permit provisions for CERCLA remediation. There are no such permit provisions under RCRA.

5.8 There is no statutory preference for an onsite remedy under RCRA as there is under CERCLA. The appropriate regulatory agency will choose the final remedy at a federal facility under RCRA. The federal facility chooses the remedy under CERCLA with full concurrence from the EPA.

5.9 The way in which cleanup levels are set differ. RCRA establishes two levels; the action level and the media cleanup standards (MCS). The action level is the level at which corrective actions are required if this level is exceeded. The MCS is an EPA/State established cleanup standard that must be achieved during the Corrective Measures Implementation (CMI). Under CERCLA the cleanup levels are set on a case-by-case basis through risk analysis and ARARs review. The levels are typically decided among all parties, and may not necessarily be consistent from site-to-site or from state-to-state.

5.10 There is no public comment period related directly to the RCRA investigation process. However, all Part B permit modifications go to public comment. So, the corrective action public participation requirements are met at this time.

6. Pitfalls in Choosing a Remediation Process

In determining under which particular process to remediate a site, several non-tangible factors must also be taken into consideration such as the potential threat to the environment, health and safety concerns, response time, public perception, etc.

6.1 Non-NPL RI/FS

As discussed above, an RI/FS is not necessarily required on non-NPL sites. On non-NPL sites, CERCLA section 120 (a) (4) states that "state remedial/removal action laws and regulations apply." However, in the event there are no state removal/remedial action laws that apply, and there is suf-

ficient contamination, the project manager may choose to perform a CERCLA RI/FS in order to investigate the site. Also, at sites where there is much public participation, the project manager may choose to execute a RI/FS and all the associated public participation requirements.

6.2 Mini-RI/PB

There is no regulatory provision for a “mini-RI/FS”. If the site is non-NPL and one still wants to perform a RI/FS, the RI/FS should be performed under the auspices of the NCP. If one seeks to scale down the effort, it is recommended that an EE/CA be performed in lieu of an RI/FS assuming there are no state removal/remedial action authorities that apply. There is no such thing as a "mini-RI/FS".

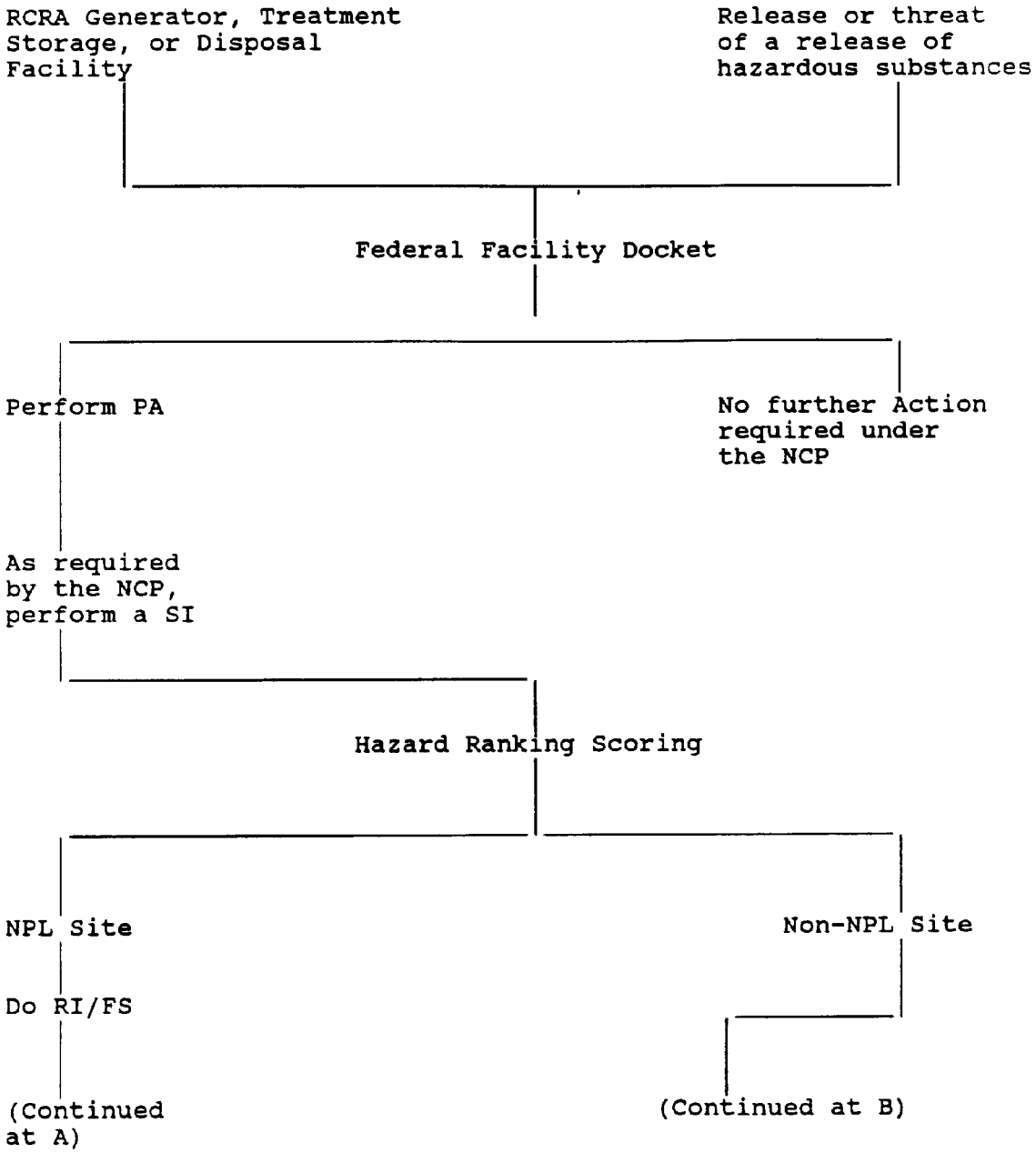
6.3 Petroleum Contaminated Sites

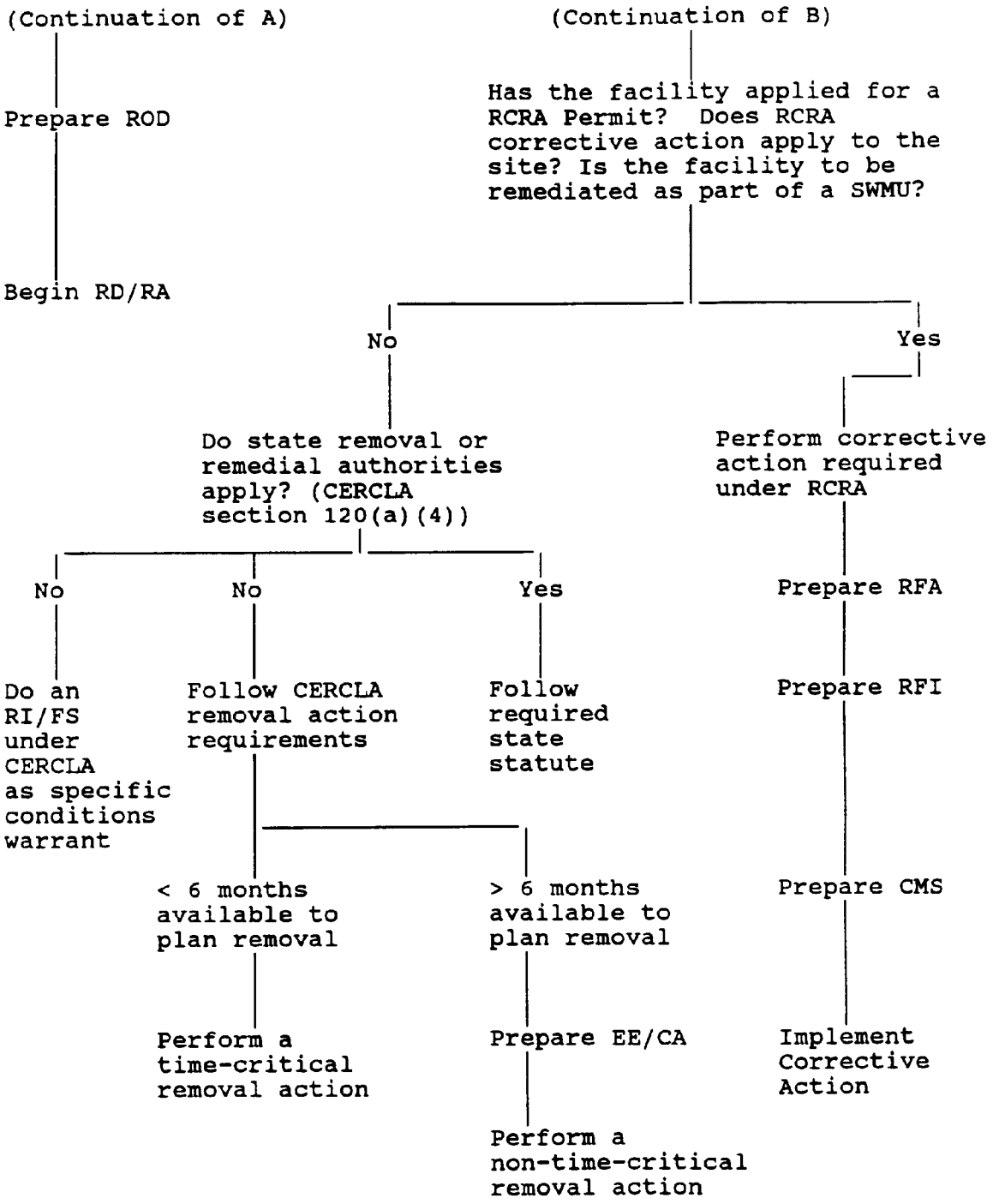
CERCLA specifically excludes petroleum products and constituents thereof from the definition of a hazardous substance. Hence, if the contamination is solely petroleum, the site should be remediated under a different authority than CERCLA. One should look at state groundwater regulations, underground storage tank regulations and possibly hazardous waste regulations for alternative remediation processes.

7. Summary

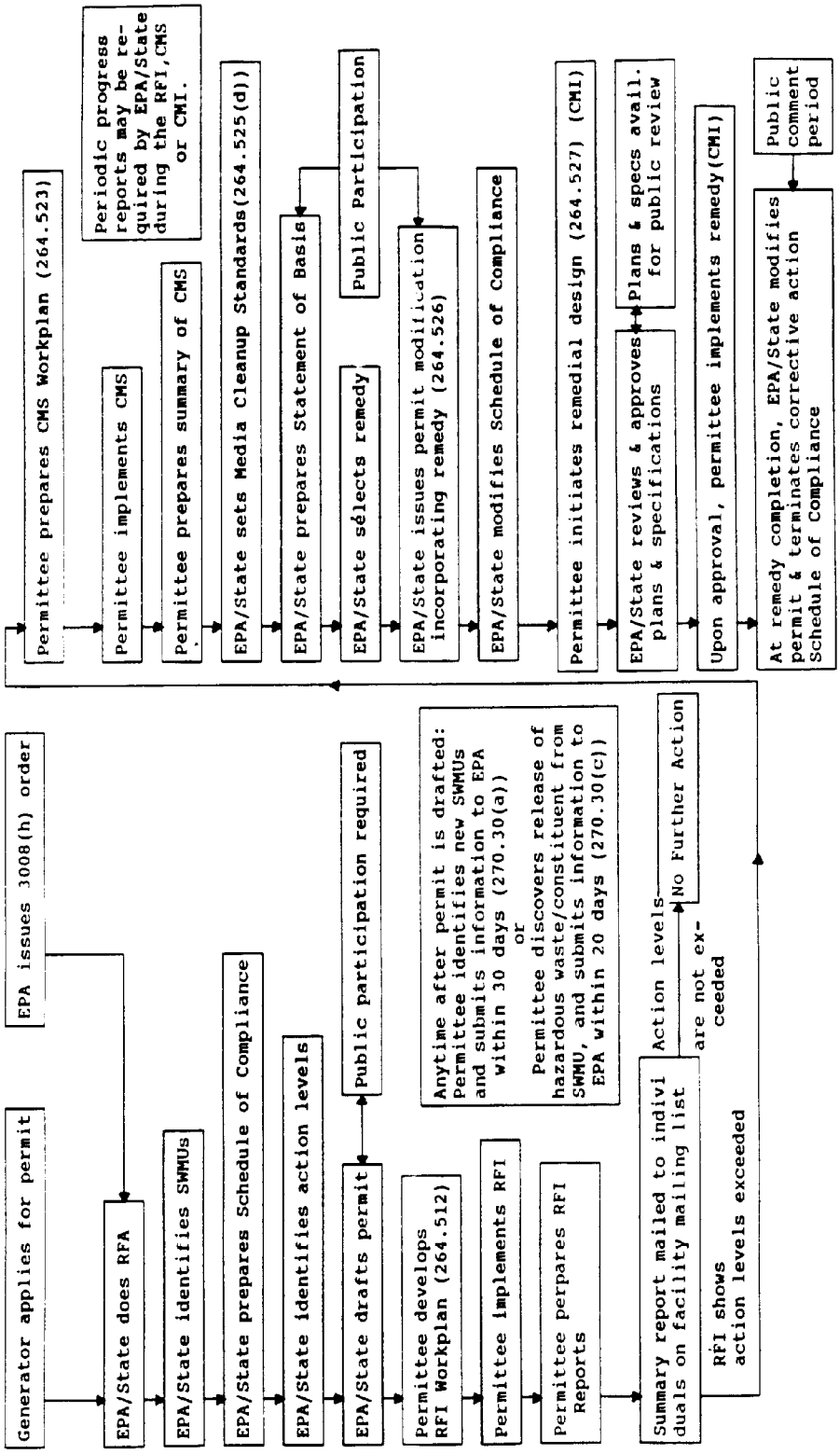
The RCRA and CERCLA remediation processes are both complex means to investigate and remediate HTRW sites. Each process has its specific applicability. When planning a remediation project, the first best step is to meet with all applicable federal, state and local regulators to develop a project plan which considers all regulatory authorities. This meeting and the results should be negotiated and formalized into an agreement.

The RCRA & CERCLA Processes
Figure 2.




(Continuation of A)
Prepare ROD
Begin RD/RA
(Continuation of B)
Has the facility applied for a RCRA Permit? Does RCRA corrective action apply to the site? Is the facility to be remediated as part of a SWMU?
No
Yes
Do state removal or remedial authorities apply? (CERCLA section 120(a)(4))
Perform corrective action required under RCRA
No
No
Yes
Prepare RFA
Do an RI/FS under CERCLA as specific conditions warrant
Follow CERCLA removal action requirements
Follow required state statute
Prepare RFI
< 6 months available to plan removal
> 6 months available to plan removal
Prepare CMS
Perform a time-critical removal action
Prepare EE/CA
Implement Corrective Action
Perform a non-time-critical removal action

The RCRA Corrective Action Process
Figure 2



Comparison of the CERCLA and RCRA Process
Figure 3